Claims

1. A fitting for providing a substantially fluid-tight seal between an opening in a chamber wall and a pipe passing through said opening, said fitting comprising:-

(i) a tubular sleeve adapted to pass through the opening in the chamber wall and further adapted to allow the pipe to pass through the sleeve;

(ii) a flange, extending radially outwardly from the sleeve, a first surface of the flange being configured to contact the chamber wall around substantially the whole circumference of the opening;

characterised in that the flange incorporates an energy transfer means at or near the first surface, said energy transfer means enabling the first surface and/or the wall of the chamber in the vicinity of the flange to be heated to cause the flange and the wall to fuse or bond together in order to form a substantially fluid tight seal.

2. A fitting according to Claim 1, in which the first surface comprises a fusible material which, when heated via the energy transfer means, at least partially melts, causing the fitting and the wall to be fused together.

3. A fitting according to either Claim 1 or claim 2, in which the energy transfer means comprises conduction means for conducting an electric current, said conduction means in use, being heated by the current, to cause said heating of the surface.

4. A fitting according to Claim 1 or Claim 3, in which the fitting is adapted for use with a wall which is of a material which is not suitable for being attached to the fitting by electrofusion, the first surface of the fitting incorporating an adhesive of a type which is activated by heat, wherein the heating of the surface by the energy transfer means activates the adhesive and thereby bonds the fitting to the wall.

5. A fitting according to Claim 4, in which the adhesive is selected from a thermoplastic, thermoset, cross-linking or pressure sensitive adhesive.

6. A fitting according to any of Claims 3 to 5 inclusive, in which the conduction means comprises a heating wire which is embedded within the first surface.

7. A fitting according to any preceding claim, in which the sleeve is of a substantially circular cross-section, and the flange is radial.

8. A fitting according to Claim 3 or Claim 6, in which the fitting includes terminals for connecting the conduction mans to a current supply.

9. A fitting according to any preceding claim wherein the fitting further comprises a sealing member or boot adapted to form a fluid tight seal between the sleeve and the pipe.

10. A fitting and sealing member according to Claim 9, in which the sealing member is resilient, and there is provided clamping means for clamping the sealing member to the pipe and/or the sleeve.

11. A fitting according to any preceding claim modified in that the energy transfer means is incorporated into the wall of chamber in the region directly beneath the flange.

12. A method of forming a seal between an opening in a chamber wall and a pipe passing through said opening, the method comprising the steps of:-

(a) applying a fitting to the pipe, said fitting comprising a tubular sleeve adapted to pass through the opening in the chamber wall and further adapted to allow the pipe to pass through the sleeve; a flange extending radially outwardly from the sleeve, a first surface of the flange being configured to contact substantially the whole circumference of the flange, the flange incorporating an energy transfer means at or near the first surface;

(b) applying energy to the energy transfer means and thereby heating the first surface and/or the portion of the wall of the chamber in the vicinity of the flange to cause the fitting to become fused or bonded to the chamber wall in a fluid tight manner;

(c) applying a sealing member or boot to form a fluid tight seal between the sleeve and the pipe.

13. A method according to Claim 12, in which said heating is achieved by passing an electric current through conduction means in the vicinity of the portion of the wall and the first surface.

14. A method according to Claim 13, in which conduction is carried by the first surface.

15. A method according to either Claim 13 or Claim 14, in which the materials constituting the wall and the surface are such that the surfaces are fused together by a process of electrofusion.

16. A method according to Claim 13 or claim 14, in which the method also includes providing an adhesive on the first surface which is activated by said heating to cause the fitting to be bonded to the wall.

17. A method according to Claim 16, in which the adhesive is incorporated into the first surface on the flange.

18. A method according to any of Claims 13 to 17, in which the wall comprises a manhole chamber wall for a subterranean fuel tank.

19. An assembly comprising a combination of a manhole chamber for a subterranean fuel tank, a pipe which passes through an aperture in the wall of the chamber, a fitting having a sleeve through which the pipe passes, the fitting being placed against the wall so as to surround the aperture, energy transfer means for heating the fitting and/or the chamber to cause the fitting and/or chamber wall to be

fused or bonded together in a region which surrounds the aperture, and a sealing member for sealing the pipe to the sleeve.

20. A fitting substantially as described herein with reference to, and as illustrated in, any combination of the accompanying drawings numbers 2 to inclusive.

21. A method substantially as described herein with reference to any combination of the accompanying drawings.

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